

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
17 March 2005 (17.03.2005)

PCT

(10) International Publication Number
WO 2005/023510 A1

(51) International Patent Classification⁷: B29C 45/50

(21) International Application Number: PCT/NL2004/000546

(22) International Filing Date: 2 August 2004 (02.08.2004)

(25) Filing Language: Dutch

(26) Publication Language: English

(30) Priority Data:
1024055 6 August 2003 (06.08.2003) NL

(71) Applicant (for all designated States except US): OTB GROUP B.V. [NL/NL]; Luchthavenweg 10, NL-5657 EB Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): EVERSS, Marinus, Franciscus, Johanus [NL/NL]; Ginderover 33, NL-5591 JM Heeze (NL). HOMPUS, Michael, Adri-anus, Theodorus [NL/NL]; Dijksestraat 33, NL-5701 AJ Helmond (NL).

(74) Agent: WINCKELS, J., H., F.; Vereenigde, Johan de Witlaan 7, NL-2517 JR Den Haag (NL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

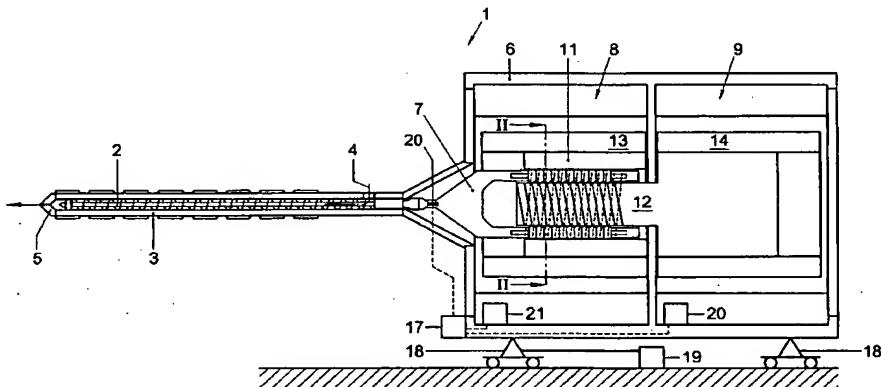
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INJECTION MOLDING APPARATUS AND METHOD FOR THE USE OF SUCH AN INJECTION MOLDING APPARATUS



WO 2005/023510 A1

(57) Abstract: An injection molding apparatus (1) provided with a central control and with a screw (2) which extends in a cylinder (3), which cylinder is provided with a filing opening (4) and with a nozzle (5), the screw being drivingly connected with two controllable electric motors (8, 9) such that a movement in rotational-and/or axial sense can be imposed on the screw, the driving connection comprising a number of cylindrical planetary rollers (10) accommodated for rotation in a planetary cage (7) such that the planetary rollers can be engaged from a space located radially outside the planetary cage and a space located radially within the planetary cage, the planetary cage being connected to the screw in a manner secured against rotation, while a first drive part (11) connected with a rotor (13) of the first electric motor (8), is provided with a first engaging surface facing radially inward which engages the planetary rollers from the space located radially outside the planetary cage, while a second drive part (12), connected with a rotor (14) of the second electric motor (9) is provided with a second engaging surface facing outwards which engages the planetary rollers from a space located radially within the planetary cage.